

# North Carolina Department of Transportation's Asphalt Solvent Testing Program

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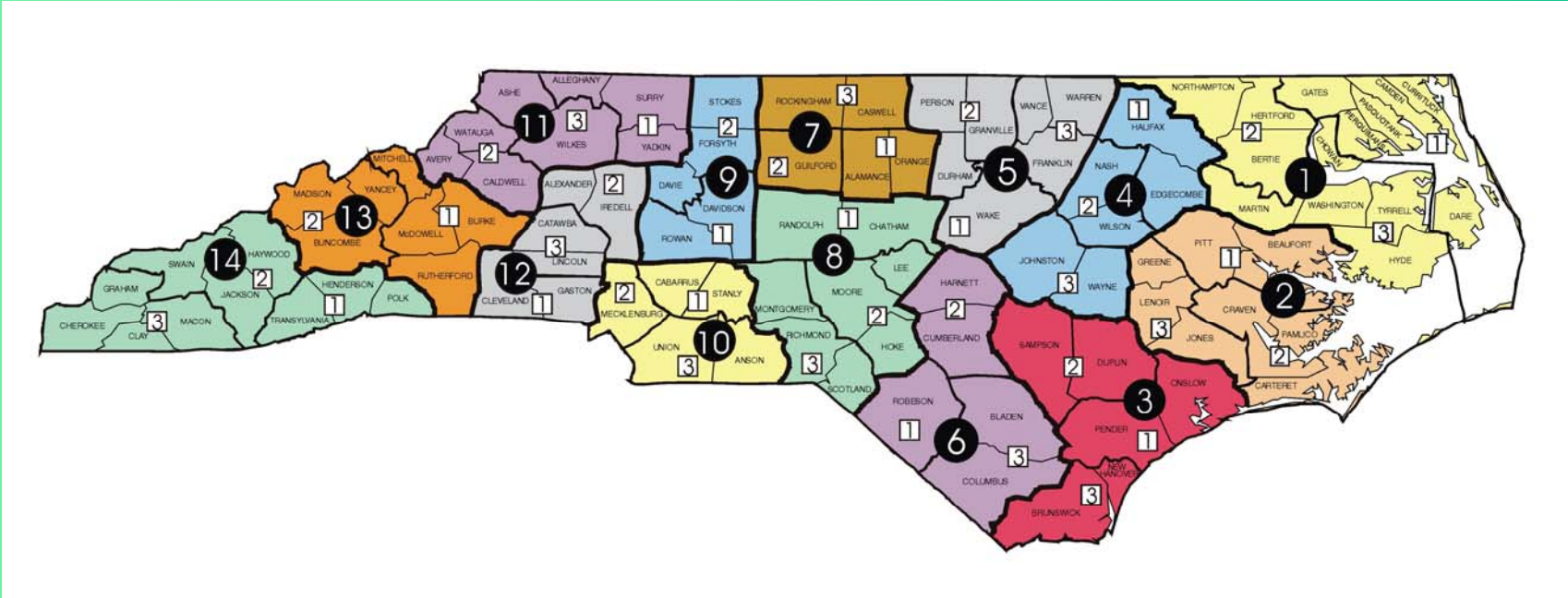
# What is Asphalt Solvent?

Chemical product used to clean equipment and tools



- Asphalt Distributors
- Spray Bars
- Hand Tools

# Who Uses Asphalt Solvent?



## 103 Highway Maintenance Facilities

# 14 Bituminous Unit Facilities

# Why Start a Program?

## Management Issue:

Multiple vendors

Variety of solvents in field

Field had little knowledge about products

Inefficient use of field personnel time

## Environmental Stewardship Issue:

- Needed better recognition of potential hazards
- Needed better chemical understanding of product

# What Did We Want?

An Asphalt Solvent That:

- Safe for People to Use
- Safe for the Environment
- Effective in Removing Asphalt
- Reasonable Price

# Who Was Involved?

**NCDOT**      State Road Maintenance Unit  
Materials and Testing Unit  
Roadside Environmental Unit  
Purchasing

**NC DENR**

**NC State University**

**Industry**

# What Was Developed?

Specification

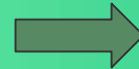
Testing Program

Safe for People to Use:



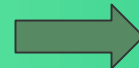
pH Test & Flashpoint Test

Safe for the Environment:



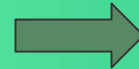
EPA Method 8260B

Effective in Removing Asphalt:



Performance Test

Reasonable Price:



Statewide Contract

Qualified Products List (QPL)

# What were the Results?

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## Winter 2003

- 18 Products Submitted by 11 Vendors
- 1 Product Passed all 4 Tests (QPL)

## Spring 2003

- Shared results with DENR
- Purchasing received bid from Supplier

## Summer 2003

- NCDOT awarded the contract to the West Penetone Corporation for \$8.17 per gallon



# What were the Results?

## Spring 2004

- Began Soliciting Vendors to Participate in 2004 Program
- Had Inconsistency with Product under Contract
- Worked with Vendor, DENR, Industry, and Independent labs to resolve inconsistency

## Summer 2004

- Requested 6 month contract extension to resolve inconsistency
- Based on research, made minor changes in administration of solvent testing program

# What were the Results?

## Fall 2004

- Solicited Vendors Again
- 12 Products Submitted by 7 Vendors
- 5 Products Submitted by 5 Vendors Passed all tests

## Spring 2005

- NCDOT awarded the contract to the West Penetone Corporation for \$7.19 per gallon

# What were the Savings?

2004:	59,762	Gallons
	<u>\$8.17</u>	per Gallon
	\$488,255	Spent on Solvent
2005:	59,762	Gallons
	<u>\$7.19</u>	per Gallon
	\$429,689	Anticipated Expenditure
	\$58,566	Anticipated Savings

# What Have We Learned?

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## Required Communication

- Within NCDOT

- With other state agencies

## Required Commitment

- Safe for people

- Safe for environment

- Effective

- Reasonably priced

## Required Change

Thank You!